

## ABSTRACT

The present invention bundles four ring oscillators, a 20-bit ripple counter and the necessary control logic needed to implement a JTAG scan based interface. The present system can be located on every die, so that each location can be individually tested. It communicates with the outside world through a standard JTAG interface. It is accessible at wafer, package, and system test which allows for several methods of correlating the oscillator speed to the speed of a part in the actual system.

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